

A woman wearing a striped dress and a headband sits on a wooden bench in a rural, dusty environment. Several small piglets are scattered around her. A bicycle is leaning against a wall to the left, and a motorcycle is leaning against a large bundle of straw to the right. The background shows a simple building with a thatched roof and a dirt path.

EFE CAB: IMPROVING PIG MANAGEMENT TO PREVENT EPILEPSY IN BURKINA FASO (R01NS064901)

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General Significance



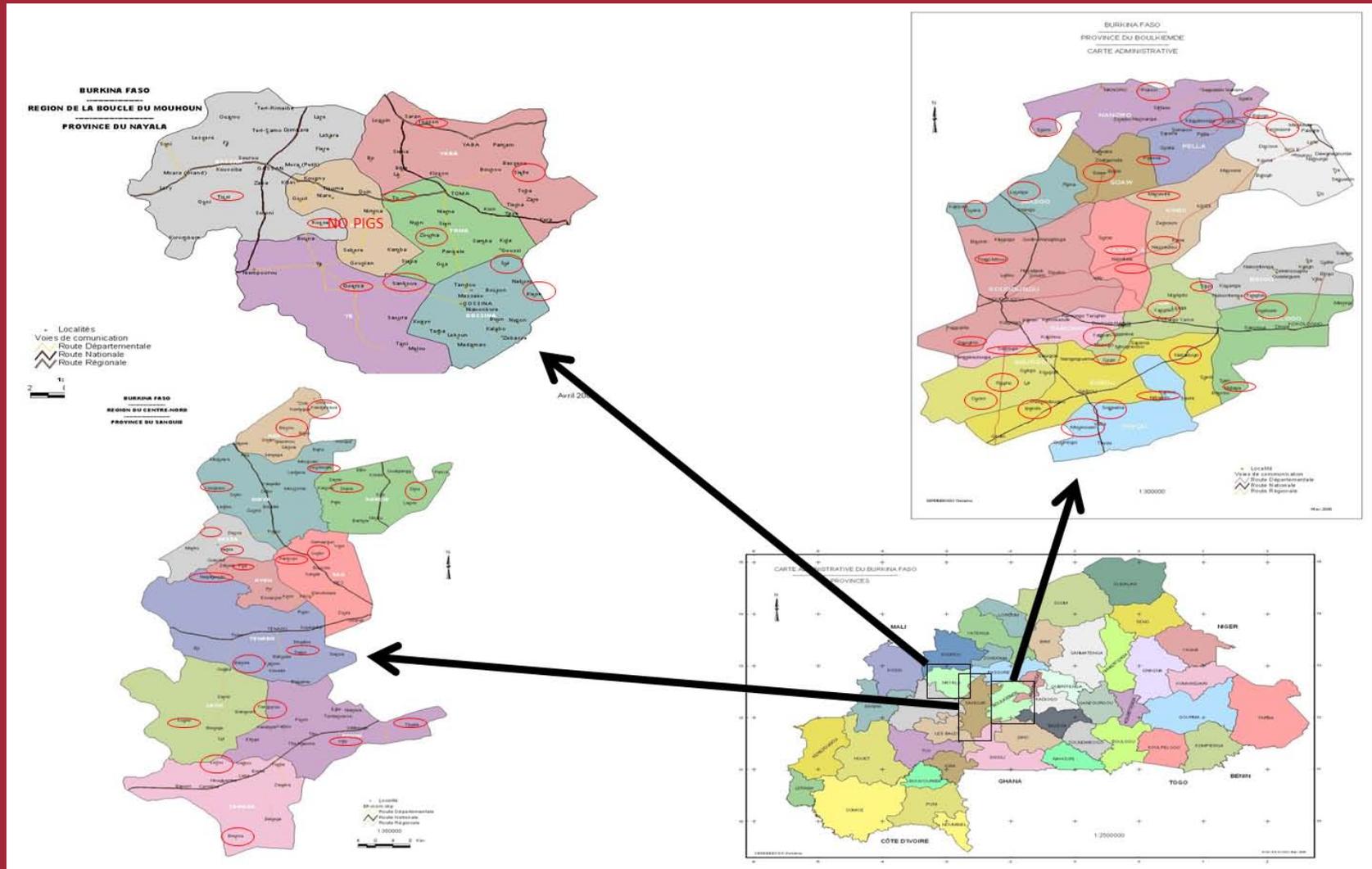
Significance of epilepsy in Burkina Faso

- Prevalence of epilepsy in rural developing countries is nearly 3 times higher than in developed countries (1.5% vs 0.6%) (Ngugi et al., 2010)
- Pilot study suggested that >45% of PWE had definite or probable NCC in villages where pigs were raised.
- PWE are highly stigmatised

Overall Objective

To develop a sustainable, education-based intervention to reduce the burden of cysticercosis in rural Burkina while improving pig production.

Research progress – 60 study sites



Research progress – Baseline study

	Province		
	Boulkiémdé	Nayala	Sanguié
# of villages	30	10	20
# of people in selected HHs	21,554	5,831	13,681
# of chief of the HH questionnaires	2,402	798	1,594
# of mother of the HH questionnaires	2,379	791	1,591
# of screening questionnaires	2,489	814	1,667
# of sero samples	1,923	591	1,316
# of pig questionnaires	1,174	284	786
# of pig sero samples	1,174	284	786

Research progress – Preliminary results

- Preliminary results of the AgELISA test for humans and pigs (about half of samples not analyzed yet)

	Humans	Pigs
Boulkiemdé	693/727 (4.7%)	129/287 (44.9%)
Nayala	3/78 (3.9%)	
Sanguié	12/670 (1.8%)	127/314 (40.5%)

Research progress – Preliminary results

- Preliminary results of people screened and confirmed (VERY preliminary) positive for epilepsy and single seizures

	Screened positive	Uncertain	Confirmed (V. preliminary)
Boulkiemdé	277 (11.3%)	29 (1.2%)	82 (27%)
Nayala	24 (2.9%)	1 (0.12%)	8 (32%)
Sanguié	264 (15.9%)	106 (6.4%)	60 (16%)

Research progress – Baseline study

- Sent 230 people for a CT
 - Results pending comparison between radiologists
 - (37/206) 18% NCC lesions according to 1 radiologist
 - Includes epilepsy and severe headaches patients – databases not merged yet.
- The 60 villages have now been block randomized
 - Block is the département (2 villages per département)

Intervention package

Aiming at long-term sustainability



Intervention package

Movie: « La colère des génies » »

Clips from the movie making the crowd laugh



Crowd watching the movie at intervention village



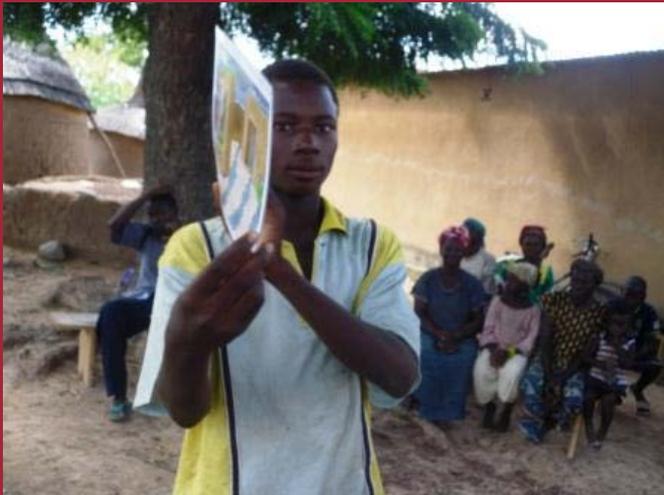
Intervention package

SARRAR / PHAST

- PHAST: Participatory Hygiene And Sanitation Training
- SARAR: Self-esteem, Associative strengths, Resourcefulness, Action-planning, and Responsibility
- PHAST builds on the concepts of SARAR and is designed to promote hygiene behaviours, sanitation improvements and community management of water and sanitation facilities using specifically developed participatory techniques
- The tools were adapted to specific training for cysticercosis
 - Pigs having access to human feces.
 - Consumption of undercooked meat
- EAA (Eau, Assainissement pour l'Afrique) have extensively used this tool

http://www.who.int/water_sanitation_health/hygiene/envsan/phast/en/

Intervention package SARAR/PHAST



Research capacity building / barriers

- Attempts to build research capacity
 - One PhD candidate in epidemiology was to graduate in Summer 2012
 - One PhD student in immunology to graduate in Fall 2013
- Barriers to building capacity through student training
 - Lacking of demonstration to the program and to the study
 - Difficulty paying attention to details
 - One student on academic probation since Summer
 - Other student risks termination in November
- Future solutions / improvement
 - Change the application / selection process to be stricter, possibly adopting a more « stepwise » approach.

Research capacity building / barriers

- Planned and wrote a Global ID Training grant to strengthen in-country public health training
 - Application failed due to
 - Poor communication with local PI
 - Poor support for ONE of the grant application expert at OUHSC
 - Solutions
 - Crap happens! Will resubmit in May 2013
 - The foreign PI was « stuck » in his application for Full Professor....
 - Work with another grant submission expert...
- Applied to Health Policy Action Funds to support movie production (Ganaba PI)
 - Not funded
 - « Due to the very high number of quality proposals received, your proposals was one of the many good ones in the selection process and unfortunately your organisation was not selected for funding. «

Other barriers

- The AgELISA requires monoclonals
 - Lab waited until the last minute to inform ITM that they were running out
 - OPPORTUNITY FOR CAPACITY BUILDING
 - Monoclonals sent to GHANA (and stood in the heat for > 2 weeks)
 - Crap happens.....
- Seeking support from NGOs to implement intervention
 - Expect very large budgets....
 - Difficult to resolve..



THANK YOU - -QUESTIONS ?



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